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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/659,223	09/10/2003	Krishnamurthy Bhaskar	58552.US	5755

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EXAMINER	
REKSTAD, ERICK J	

ART UNIT	PAPER NUMBER
2621	

NOTIFICATION DATE	DELIVERY MODE
03/26/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/659,223	BHASKAR ET AL.	
	Examiner	Art Unit	
	ERICK REKSTAD	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 December 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10 and 12-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10 and 12-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This is a Non-Final rejection for Application No. 10/659,223 in response to the RCE filed on December 10, 2007.

Response to Arguments

Applicant's arguments with respect to claims 1-10 and 12- 20 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-17, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6,370,487 to Dorough in view of US Patent 5,926,208 to Noonen et al. in further view of US Patent 5,845,166 to Fellegara et al.

[claim 1]

As shown in Figure 1A, Dorough teaches a system for inspecting a substrate (100). The system comprises an inspector (108) having a sensor (118, 120), a network (111), and a desktop (102A-n) for receiving the video stream (Abstract, Col 1 Lines 12-16), Col 1 Line 64-Col 2 Line 1). Dorough is silent on the use of a control interface and a parser.

As shown in Figure 2, Noonen teaches the connection of a camera system (1000) to a computer system(1002) wherein the computer system provides a user an interface(1016) to configure the video camera system(1000) (Abstract). The network (1006) connecting the computer system to the video camera system provides for a control stream (Col 10 Lines 17-27) and a video stream (Col 10 Lines 55-58). The camera system includes a video communication processor (1024). The video communication processor is connected to the video source (Col 7 Lines 23-39, Fig. 3). The video communication processor provides the means for compressing, decimating, parsing, and frame rate selection (Col 8 Lines 23-35, Col 10 Lines 17-28 and 35-44, Figs. 4-7). The parsing value is determined prior to delivery of the video stream from the sensor to the desktop by using an initialization file (Camera.INI 3028, Fig 4) (Col 10 Lines 17-28). The file allows for setting up the focus, zoom (cropping), exposure, light balance, etc for the video source (Col 10 Lines 40-44). It would have been obvious to one of ordinary skill in the art to adapt the inspector of Dorough in order to provide the inspector a means to control the camera so multiple compression standards can be used as taught by Noonen (Col 3 Lines 6-12). Noonen is silent on the "selective cropping reduces a size of the video stream."

As shown in Figure 19, Fellegara provides a similar system for controlling an imager over a network using a desktop (Col 19 Lines 8-13, Lines 25-36 and Col 20 Lines 1-6). Fellegara further teaches the ability of a user to perform cropping in order to meet a desired format (Col 9 Lines 57-60, Col 10 Line 53-Col 11 Line 13, Figs. 13A-13D). The cropping produces a reduced size as required by the claim (Col 12 Lines 7-

10 and 25-55). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the cropping of Fellegara with the system of Dorough and Noonen as Fellegara teaches the cropping provides a desired format and reduces image size (Col 12 Lines 28-32 and Lines 47-52).

[claims 2-4]

Dorough teaches the use of the system for analyzing semiconductor wafers (Col 1 Lines 11-16, Col 1 Lines 34-40, Col 3 Lines 10-15). As required by claim 2, Dorough teaches the inspection system is an optical inspection system (Col 4 Lines 4-5). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the remote semiconductor microscope of Dorough with a semiconductor wafer mask as Dorough teaches the use of the system for remote inspection and during semiconductor processing (Col 1 Lines 47-50 and Lines 60-66).

[claim 5]

As shown in Figure 1A, Dorough teaches the use of multiple video sources (118 and 120).

[claims 6-10, 13 and 14]

Dorough teaches the use of a video capture system (112) for converting the analog video into a digital form (Col 4 Lines 46-49). Dorough further teaches the video capture system includes a video encoder (CODEC) which encodes, or compresses the captured frames (Col 6 Lines 61-65). Dorough teaches the encoding in the ASF or Real Video formats (Col 5 Lines 5-10). Dorough is silent on a user interface for selectively

setting characteristics of the video stream prior to delivery of the video stream from the sensor.

Noonen teaches the ability of the user to select several options for configuring the camera system(Figs. 4-7). Noonen teaches one selection is the codec to use (MPEG-1, H.320, H.324 and JPEG). The codec selection determines the motion estimation, loop filters, DCTs, quantization, and zigzag scanning operations used by the system (Col 8 Lines 23-35). The user's selection further includes a configuration file (MEP.CFG 3026, Fig. 4) which allows the user to configure the bit rate to compress, how much compression and how much information to throw away, and which colors to affect (Col 10 Lines 35-40). The user is further provided an initialization file (Camera.INI 3028, Fig 4) for setting up the focus, zoom, exposure, light balance, etc for the video source (Col 10 Lines 40-44). In regards to claim 6, the above configuration files are provided prior to delivery of the video stream from the sensor to the desktop (Col 10 Lines 17-28).

Note, the selection of the codec affects the degree of compression as required by claims 7 and 8(Col 8 Lines 23-35), the down sampling of the video stream as required by claims 9 and 10 (Col 10 Lines 35-40), and frame rate as required by claims 13 and 14 (Col 11 Lines 4-9).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the configurable camera system of Noonen with the inspection system of Dorough in order to provided the user the ability to configure the compression

based on the needs of the user and the environment as taught by Noonen (Col 2 Lines 30-54, Col 10 Lines 41-43).

[claim 12]

As shown above Dorough, Noonen and Fellegara teach the system of claim 1. Dorough and Noonen are silent on the parser cropping the video stream to a variable degree as specified through the user interface controls on the desktop.

Fellegara teaches the user may select the desired cropping at a variable degree (Col 10 Lines 31-39 and 53-59). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the cropping means of Fellegara with the system of Dorough and Noonen in order provide the desired output to the user (Col 10 Line 53-Col 11 Line 13).

[claim 15]

As shown above for claim 1, Figure 1A of Dorough teaches a system for inspecting a substrate (100). The system comprises an inspector (108) having a sensor (118, 120), a network (111), and a desktop (102A-n) for receiving the video stream (Abstract, Col 1 Lines 12-16), Col 1 Line 64-Col 2 Line 1). Dorough is silent on the use of a control interface and a parser adapted to selectively crop as claimed.

Figure 2 of Noonen teaches the connection of a camera system (1000) to a computer system(1002) wherein the computer system provides a user an interface(1016) to configure the video camera system(1000) (Abstract). The network (1006) connecting the computer system to the video camera system provides for a control stream (Col 10 Lines 17-27) and a video stream (Col 10 Lines 55-58).

As shown above for claims 7-14, Noonen teaches the use of a video communication processor (MEP 1024, Fig. 2) connected to the video source (Col 7 Lines 23-39, Fig. 3). The video communication processor provides the means for compressing, decimating and frame rate selection (Col 8 Lines 23-35, Col 10 Lines 17-28 and 35-44, Figs. 4-7).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the configurable camera system of Noonen with the inspection system of Dorough in order to provided the user the ability to configure the compression based on the needs of the user and the environment as taught by Noonen (Col 2 Lines 30-54, Col 10 Lines 41-43). Noonen is silent on the use of the parser as claimed.

As shown in Figure 19, Fellegara provides a similar system for controlling an imager over a network using a desktop (Col 19 Lines 8-13, Lines 25-36 and Col 20 Lines 1-6). Fellegara further teaches the ability of a user to perform cropping in order to meet a desired format (Col 9 Lines 57-60, Col 10 Line 53-Col 11 Line 13, Figs. 13A-13D). The cropping produces a reduced size as required by the claim (Col 12 Lines 7-10 and 25-55). Fellegara teaches the operation is performed by a microcontroller (120 in Fig.1) (Col 11 Line 65-Col 12 line 3 and Col 12 lines 28-31). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the cropping of Fellegara with the system of Dorough and Noonen as Fellegara teaches the cropping provides a desired format and reduces image size (Col 12 Lines 28-32 and Lines 47-52).

[claims 16-17]

Dorough teaches the use of the system for analyzing semiconductor wafers (Col 1 Lines 11-16, Col 1 Lines 34-40, Col 3 Lines 10-15). As required by claim 16, Dorough teaches the inspection system is an optical inspection system (Col 4 Lines 4-5). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the remote semiconductor microscope of Dorough with a semiconductor wafer mask as Dorough teaches the use of the system for remote inspection and during semiconductor processing (Col 1 Lines 47-50 and Lines 60-66).

[claim 19]

Dorough teaches the use of an additional video stream source (SEM 2, Fig. 1A).

[claim 20]

Dorough and Noonen teach the system of claim 15 as shown above. The rejection of claim 15 further teaches the compressing, decimating and frame rate selection is performed by the MEP ((Col 8 Lines 23-35, Col 10 Lines 17-28 and 35-44, Figs. 4-7). The MEP of Noonen is further shown to reside within the inspector(1000, Fig. 2) (Col 5 Lines 29-35, Fig. 2).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the configurable camera system of Noonen with the inspection system of Dorough in order to provided the user the ability to configure the compression based on the needs of the user and the environment as taught by Noonen (Col 2 Lines 30-54, Col 10 Lines 41-43).

As shown in Figure 19, Fellegara provides a similar system for controlling an imager over a network using a desktop (Col 19 Lines 8-13, Lines 25-36 and Col 20

Lines 1-6). Fellegara further teaches the ability of a user to perform cropping in order to meet a desired format (Col 9 Lines 57-60, Col 10 Line 53-Col 11 Line 13, Figs. 13A-13D). The cropping produces a reduced size as required by the claim (Col 12 Lines 7-10 and 25-55). Note, Fellegara teaches the image format may be selected before capturing the images (Col 10 Lines 31-35). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the cropping of Fellegara with the system of Dorough and Noonen as Fellegara teaches the cropping provides a desired format and reduces image size (Col 12 Lines 28-32 and Lines 47-52).

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dorough, Noonen and Fellegara as applied to claim 15 above, and further in view of US Patent 6,512,858 to Lyon et al.

[claim 18]

As shown above for claim 15, Dorough, Noonen, and Fellegara teach an inspecting system. Noonen further teaches the ability of the user to select different settings for the encoding of the video source (Col 8 Lines 23-35, Col 10 Lines 17-28 and 35-44, Figs. 4-7). Dorough, Noonen, and Fellegara are silent on the connection between cropping and down sampling as required by the claim.

Lyon teaches the ability to provide a down sampled image of a full frame in order to provide an image viewable on a low resolution screen (Col 1 Lines 8-13 and Col 3 Lines 48-52). Lyon further teaches the use of different down sampling modes related to the cropping performed by the user. This cropping is suggest by Lyon to be used by the user to view an area of interest (Col 4 Lines 1-12, Lines 33-57). It would have been

obvious to one of ordinary skill in the art at the time of the invention to use the down sampling and cropping relationship taught by Lyon with the system of Dorough, Noonen and Fellegara in order to provide a user with a low resolution viewscreen the ability to observe a full image and an area of interest as taught by Lyon (Col 4 Lines 51-57).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERICK REKSTAD whose telephone number is (571)272-7338. The examiner can normally be reached on 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on 571-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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